Understanding the determinants of diet quality among rural agricultural farm households in Fiji

Anna Finizio, Sharmina Ahmed, Wendy Umberger

Contributed presentation at the 60th AARES Annual Conference,
Canberra, ACT, 2-5 February 2016
Understanding the determinants of diet quality among rural agricultural farm households in Fiji

Anna Finizio, Sharmina Ahmed, Wendy Umberger
Global Food Studies, University of Adelaide

AARES Annual Conference 2016
Motivation

- Nutrition Transition:
  - Shift in composition of diet
  - Paralleled with changes in health outcomes and demographic and socio-economic changes

- Developing Countries:
  - Rapid change to “westernised” diet
  - Rise in non-communicable diseases

- Transformation of global food systems
  - Transport, marketing, urbanisation, supermarket revolution
Motivation

- Pacific Island Countries:
  - Nutrition transition: *Trade in food* (Evans et al, 2001; Hughes and Lawrence, 2005; Thow and Snowdon, 2010)
  - Obesity and diabetes epidemic

- Fiji:
  - Nutrition transition: *Shift from local to imported* (Hone, 2003; Hughes, 2003; Thow and Snowden, 2010; Snowden et al, 2010)
  - Significant increase in the amount of deaths due to Non-Communicable Diseases
  - Diabetes the main cause of death in 2014 (Fiji Ministry of Health, 2015)
Data

- **PARDI Retail Transformation Study 2013-2014**
  - Farmers in evolving horticultural value chains in Fiji
- Partnered with Ministry of Agriculture Fiji, University of South Pacific and UN Women Fiji.
- 600 Rural Agricultural Households
- Both male and female of the household interviewed
  - Female survey
- 79 different food categories across a mix of 10 types of retail formats.
Research Question

- What is the influence of household level socio-economic characteristics on food choice behaviour and dietary intake among rural agricultural Fijian households.
Empirical Estimation

The relationship between socio-economic factors and food purchasing behaviour:

• $y_i = g(x_i, b)$
Conceptual Model
Volpe, Okrent and Leibtag, (2013), AJAE

- Healthy Eating Index:
  - Items classified according to USDA 2010 Guidelines.
  - 15 Point Scale

- Food Expenditure Share:
  - Total expenditure share on healthy foods
  - Share of expenditure on five healthy food groups
  - Share of expenditure of five unhealthy food groups
Independent Variables

\[ y_i = f(\text{own consumption, distance to market, sum land, total expend, total expend}^2, \text{women empowerment, under5 children, age, age}^2, \text{edu, edu}^2, \text{ethnicity, location}) \]

- Own consumption (Hersforth, 2010; Jones et al, 2014; Kumar et al, 2015; Malapit et al, 2015)
- Women’s empowerment/control over resources (Malapit et al, 2013; Jones et al 2014)
- Distance to modern market (Asfaw, 2008: Kelly et al 2014; Kimenju et al, 2015)
## Key Findings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Healthy Eating Index</th>
<th>Expenditure on healthy foods</th>
<th>Expenditure on healthy food groups</th>
<th>Expenditure on unhealthy food groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own consumption</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Women’s empowerment</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Distance to modern market</td>
<td></td>
<td></td>
<td>+ (Dairy and Meat)</td>
<td>- (Vegetables)</td>
</tr>
<tr>
<td>Ethnicity (Indigenous Fijians)</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Location (Central Division)</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Total Expenditure</td>
<td></td>
<td></td>
<td>+ (Dairy and Meat)</td>
<td>- (Vegetables)</td>
</tr>
</tbody>
</table>

+ = Increased consumption  
- = Decreased consumption
Discussion

- Household level production of food items and women’s role in household decision making are more influential than education and age.
Future Research

- Next steps:
  - Production diversity and diet diversity
  - Rural health outcomes
  - Urban diet quality
Thank you!

anna.finizio@adelaide.edu.au